

## **REMARKS**

Applicant appreciates the consideration shown by the Office, as evidenced by the Office Action, mailed on June 22, 2005. In that Office Action, the Examiner declined to consider several of Applicant's IDS references, objected to the Abstract, objected to claim 13, rejected claims 5 and 7 under 35 USC 112, second paragraph, rejected claims 14-17 under 35 USC 102(b) on Dorenbos et al., Scintillation properties of some Ce<sup>3+</sup> and Pr<sup>3+</sup> doped inorganic crystals, IEEE Transactions on Nuclear Science, Vol. 40, No. 4, August 1993, rejected claims 1-5, 11, and 13 under 35 USC 103(a) on Dorenbos et al. in view of van Eijk et al., ND<sup>3+</sup> and Pr<sup>3+</sup> Doped Inorganic Scintillators, IEEE Transactions on Nuclear Science, Vol. 41, No. 4, August 1994, rejected claims 6 and 10 under 35 USC 103(a) on Dorenbos and Van Eijk in view of Suzuki US4649276, rejected claim 7 under 35 USC 103(a) on Dorenbos, Van Eijk, and Suzuki in view of Uddin et al. US5581087, rejected claim 8 under 35 USC 103(a) on Dorenbos and Van Eijk in view of Uddin, rejected claim 9 under 35 USC 103(a) on Dorenbos and Van Eijk in view of Kaifu et al. 6528796, and objected to claims 12, 18, and 19 based on rejected base claims.

After consideration of the Office Action, claims 1, 4, 7, and 13-15 have been amended, and claim 20 has added. Claims 1-20 are under consideration in the present application. Applicant respectfully requests reconsideration of the application by the Examiner in light of the above amendments and the following remarks offered in response to the Office Action.

### Request to remove items from file wrapper

In PAIR, papers appear to be scanned in belonging to a law firm on a different application and are listed as "Request for Corrected Filing Receipt" with a mail room date of July 11, 2005. Applicant requests that these papers be removed from Applicant's file and directed to the appropriate file.

### Information Disclosure Statement

A supplemental information disclosure statement is being filed to overcome the objections to the IDS filed on July 11, 2003. This Supplemental IDS re-lists the first four articles listed on the original IDS with typographical errors corrected and includes reference to patent application serial no. 10/314,986 filed 12/10/02 cited on a separate document without reference to the inventor's name, as US Patent 6,838,741 issued 1/4/05 by Sandvik, et al.

Consideration of the Supplemental IDS is respectfully requested.

### Objection to the Specification

The Abstract has been amended pursuant to the Examiner's recommendations to remove references to "the invention." Withdrawal of the objection is respectfully requested.

Objection to Claim 13

Applicant has made the correction suggested by the Examiner. Withdrawal of the objection is respectfully requested.

35 USC 112

Claim 5 has not been amended, but Claim 1 has been amended to add an A and thus now provides support for claim 5. Claim 7 has been amended to depend from claim 6. Applicant thanks the Examiner for pointing out the earlier typographical error. Withdrawal of the 35 USC 112 rejection of claims 5 and 7 is respectfully requested.

35 USC 102(b)

The Office Action rejected claims 14-17 under 35 USC 102(b) over Dorenbos. Applicant has amended claim 14 to recite the lutetium either alone or in combination with other materials. Support for the amendment of lutetium in combination with other materials as the "A cation" can be found in paragraph 18, for example, wherein it is stated that one or more elements Lu, Y, La, and Gd can be site A and gave  $\text{Lu}_2\text{Y}$  as an example. Applicant notes that, in the discussion of allowable subject matter on page 9 of the Office Action, there is a statement that the substitution of lutetium for the yttrium used by Dorenbos and Van Eijk is not suggested.

Accordingly, Applicant respectfully submits that claim 14 and claims 15-17 which depend therefrom define allowable subject matter over the applied art. Withdrawal of the rejections is respectfully requested.

35 USC 103(a)

Claims 1-5, 11, and 13

The Office Action rejected claims 1-5, 11, and 13 under 35 USC 103(a) over Dorenbos and van Eijk. As stated above, Applicant notes that, in the discussion of allowable subject matter on page 9 of the Office Action, there is a statement that the substitution of lutetium for the yttrium used by Dorenbos and Van Eijk is not suggested. Applicant has amended claims 1 and 13 to recite the lutetium either alone or in combination with other materials.

Accordingly, Applicant respectfully submits that claim 1, claims 2-5 which depend therefrom, and claim 13 define allowable subject matter over the applied art. Withdrawal of the rejections is respectfully requested.

Claims 6-10

Applicant notes that each of these claims has been rejected under 35 USC 103(a) over Dorenbos and van Eijk with various additional combinations of Suzuki, Uddin, and Kaifu. Each of claims 6-10 depends from claim 1 which Applicant believes to be in condition for allowance over Dorenbos and van Eijk for the reasons discussed above regardless of whether the other references might be interpreted to teach or suggest the particular aspects of claims 6-10. Accordingly, Applicant respectfully submits that claims 6-10 define allowable

subject matter over the applied references.

Objection to claims 12, 18, and 19

Claims 12, 18, and 19 were objected to as being dependent upon rejected base claims 1 and 14. The Examiner indicated that claims 12, 18, and 19 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 12 depends from claim 1, and claim 18 (from which claim 19 depends) depends from claim 14, both of which Applicant believe is patentable in their present condition for the reasons discussed above. Withdrawal of the objection is respectfully requested.

New claim 20

Claim 20 recites the scintillator material of claim 1.

Summary

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

By 

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Attachments: Supplemental IDS

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Transmittal sheet with fee for additional independent claim